ABSTRACT OF THE INVENTION

The present invention relates to highly enantiomerically pure lactam-substituted propanoic acid derivatives and methods of making and using therefor. The invention involves a multi-step synthesis to produce the lactam compounds. In one step of the reaction sequence, asymmetric hydrogenation of a lactam-enamide was performed to produce an intermediate that can ultimately be converted to a series of pharmaceutical compounds. The invention also contemplates the *in situ* synthesis of an intermediate of the multi-step synthesis, which provides economic advantages to the overall synthesis of the lactam compounds.